REMARKS

Claims 1-40 are pending, in which claim 6 is currently amended, and no claims are canceled, withdrawn, or newly presented. No new matter is added. Claim 6 has been amended to resolve a discovered informality. Thus, this change does not raise new issues requiring further consideration and/or search, and should be entered under 37 CFR § 1.116.

The final Office Action mailed September 27, 2004 rejected claims 1, 4, 6, 8-9, 14-16, 18-21, 24, 26, 28, 33-35, and 37-40 under 35 U.S.C. § 102(b) as anticipated by *Gibson et al.* (U.S. 6,680,943), claims 2, 7, 10-12, 22, 27, and 29-31 under 35 U.S.C. § 103(a) as obvious over *Gibson et al.* in view of *Gai et al.* (U.S. 6,651,096), claims 13 and 32 under 35 U.S.C. § 103(a) as obvious over *Gibson et al.* in view of *Nilakantan et al.* (U.S. 5,541,911), claims 3 and 23 under 35 U.S.C. § 103(a) as obvious over *Gibson et al.* and *Gai et al.* and further in view of *Nilakantan et al.*, claims 5 and 25 under 35 U.S.C. § 103(a) as obvious over *Gibson et al.* in view of *Haas* (U.S. 5,115,432), and claims 17 and 36 under 35 U.S.C. § 103(a) as obvious over *Gibson et al.* in view of *Sauter* (U.S. 5,537,546).

The rejection of claims 1-40 is respectfully traversed because the references applied, alone or in combination, fail to disclose all of the features of the claims.

Independent claim 1, directed to a method of communication in a network access system, recites, "**transmitting a control message from the external processor to the programmable access device to establish a configuration of the programmable access device**" and "**communicating a first portion of the received messages from the programmable access device to the external processor for service processing in accordance with the configuration.**" Independent claim 21, directed to a network access system, recites, "an **external processor that transmits a control message specifying a configuration**" and "a **programmable access device**

that receives messages from a first network external to the network access system via a first network interface, and that, **responsive to the control message, establishes the configuration specified by the control message and communicates a first portion of the received messages to the external processor for service processing in accordance with the configuration**." Independent claim 40, directed to a distributed router, recites, "a programmable access device configured to input messages from the first network via the first network interface" and "an **external processor configured to receive, from the programmable access device, a first portion of the input messages and to transmit a control message to the programmable access device specifying a configuration to control the selection of the first portion**."

In stark contrast, *Gibson et al.* (col. 1: 8-12) is concerned with establishing a bi-directional communication session between two endpoints in a communication network, particularly with situations where it is required to provide a guaranteed quality of service for the connection.

Regarding the anticipation rejection of independent claims 1 and 21, the Office Action (p. 2) contends that "transmitting a control message from the external processor to the programmable access device to **establish a configuration of the programmable access device**" is disclosed by *Gibson et al.* at col. 24: 43-51, col. 23: 4-8, and col. 9: 40-44. The cited portions of *Gibson et al.* discuss the sending of a request for a communication session from an endpoint to an admission manager and the sending of a **validation and details of a chosen, reserved path for the requested session to the endpoint** together with an identifier for the reserved path. The Office Action (p. 3) further contends that "communicating a first portion of the received messages from the programmable access device to the external processor for service processing **in accordance with the configuration**" is disclosed by *Gibson et al.* at col. 24: 28-34 and col. 9: 32-34. However, at col. 9: 32-34, *Gibson et al.* merely states, "New communication sessions

requested by an endpoint are sent to an admission manager that is associated with the endpoint," and at col. 24: 28-35 *Gibson et al.* states:

> The first event is the arrival at an endpoint 1100 of a **new session request** 1101. There is no restriction on the type of request this can be, though it must obviously be one the endpoint 1100 understands. This causes the endpoint 1100 to **send a COPS Request** (labelled A1) to its associated Admission Manager 1102. Upon receipt of this Request, the Admission Manager 1102 determines the path or paths it will attempt to use to route the session to its destination.

As best understood, the Office Action equates the recited "programmable access device" with an endpoint of *Gibson et al.* and the recited "external processor" with the admission manager 1102 of *Gibson et al.* However, there is no disclosure in *Gibson et al.* of communicating any messages, received by the endpoint, from the endpoint to the admission manager "for service processing **in accordance with the configuration**" that is established as a result of "transmitting a control message from" the admission manager to the endpoint.

Moreover, Applicants respectfully submit that independent claim 21 recites, "an **external processor that transmits a control message specifying a configuration**" and "a programmable access device that receives messages from a first network external to the network access system via a first network interface, and that, **responsive to the control message, establishes the configuration specified by the control message and communicates a first portion of the received messages to the external processor for service processing in accordance with the configuration.**" Similarly as discussed above with regard to claim 1, there is no disclosure in *Gibson et al.* of communicating any messages, received by the endpoint, from the endpoint to the admission manager "for service processing **in accordance with the configuration**" that is established as a result of "a control message specifying a configuration" that is transmitted from the admission manager.

Regarding independent claim 40, the Office Action (p. 5) contends that the recited "external processor configured to receive, from the programmable access device, a first portion of the input messages and to **transmit a control message to the programmable access device specifying a configuration to control the selection of the first portion**" is disclosed by *Gibson et al.* at col. 24: 28-34 and col. 9: 32-34. For reasons similar to those discussed above with regard to independent claims 1 and 21, Applicants respectfully submit that the recited features of claim 40 are also not disclosed by *Gibson et al.* To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). This requirement has not been met by the Office Action. Therefore, the rejection of claims 1, 21, and 40 is unsustainable and should be withdrawn.

The rejection of dependent claims 2, 4, 6, 8-9, 14-16, 18-20, 24, 26, 28, 33-35, and 37-39 should be withdrawn for at least the same reasons as those discussed above with regard to their respective independent claims, and these claims are separately patentable on their own merits.

For example, dependent claim 26 recites, "wherein the monitor control message specifies a threshold activity level." The Office Action (p. 4) correctly acknowledges that "Gibson does not explicitly indicate transmitting a monitor control message comprises transmitting a threshold activity level," but cites col. 9: 32-37, without any explanation of why the rejection is appropriate. The cited passage discloses nothing regarding any type of "threshold activity level," but merely states, "New communication sessions requested by an endpoint are sent to an admission manager that is associated with the endpoint. That admission manager then uses the SIP++ protocol and a path for the requested session is determined and reserved in order to

guarantee the requested quality of service." To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co., supra.* The rejection is confusing, as the Examiner admits the features are absent, but offers no explanation as to where or how such features can be met by the applied art.

Furthermore, dependent claim 14 recites, "transmitting a control message from the external processor to the programmable access device to establish a configuration of the programmable access device comprises transmitting a session deletion control message; and the method further comprises the programmable access device deleting a session specified by the session deletion control message." The Office Action (p. 4) contends that this feature is disclosed by *Gibson et al.* at col. 12: 7-14, col. 12: 65 - col. 13: 17, and Figure 3, which merely discuss an **endpoint** in a communications path terminating a call by issuing a BYE message **to the other endpoint**, and do not disclose the admission manager 1102 transmitting a session delete control message to the endpoint discussed previously. Thus, claim 14 is not anticipated by *Gibson et al.*

Regarding the obviousness rejections of claims 2, 7, 10-12, 22, 27, and 29-31, Applicants respectfully submit that the deficiencies of *Gibson et al.* are not cured by the secondary reference of *Gai et al.*, particularly with respect to "**responsive to the control message, establishes the configuration specified by the control message and communicates a first portion of the received messages to the external processor for service processing in accordance with the configuration.**" *Gai et al.* (per Abstract) is concerned with efficiently organizing, storing, and evaluating access control lists for use by an intermediate network device of a computer network. *Gai et al.* is cited (Office Action, p. 6) at col. 3: 55-57, col. 3: 17-40, and col. 8: 14-20 as supposedly teaching an improved way of configuring a network access device from an external

source with access control lists and filtering out certain packets which are meant to be dropped, and at col. 6: 19-30 as supposedly teaching, in combination with *Gibson et al.*, "transmitting a control message comprises transmitting a policer control message to establish a configuration of a policer in the programmable access device," "transmitting a control message comprises transmitting a control message to establish a configuration of a scheduler and one or more associated output buffers in the programmable access device," "transmitting a control message comprises transmitting a shaper control message to establish a configuration of a shaper in the programmable access device," and "transmitting a control message specifying a source from which packets are not to be accepted; and the method further comprises dropping packets from the specified source by the programmable access device" (Office Action, p. 7).

Claim 10 recites, "transmitting a control message comprises transmitting a control message to establish a configuration of a scheduler and one or more associated output buffers in the programmable access device." The Office Action apparently relies on a mere mention by *Gai et al.* of "a scheduler 422" (col. 6: 21) as a subcomponent of a "forwarding entity 404" (col. 6: 18-20), in combination with *Gibson et al.*, as teaching these recited features of claim 10. However, there is no mention or suggestion of any "associated output buffers" for the scheduler 422. Further, there is no disclosure or suggestion by either reference, alone or in combination, of "transmitting a control message to **establish a configuration** of a scheduler **and one or more associated output buffers** in the" endpoint of *Gibson et al.* This lack of disclosure, coupled with the lack of any explanation of how these features are met by the references, contravenes 35 U.S.C. § 132, which requires the Director to "notify the applicant thereof, stating the reasons for such rejection." This section is violated if the rejection "is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection." *Chester v. Miller*, 15 USPQ2d 1333 (Fed. Cir. 1990). This policy is captured in the Manual of Patent Examining

Procedure. For example, MPEP § 706 states that "[t]he goal of examination is to clearly articulate any rejection early in the prosecution process so that applicant has the opportunity to provide evidence of patentability and otherwise respond completely at the earliest opportunity." Furthermore, MPEP § 706.02(j) indicates that: "[i]t is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to respond."

Moreover, the Office Action (p.6) contends that it would have been obvious "to combine Gibson's system and Gai's access control lists to give the access points more use than just security such as better identification of incoming packets and rules to follow (Column 3, lines 17-40)." However, the cited portion of *Gai et al.* states (col. 3: 17-34, emphasis added):

> Access control lists are primarily used to provide security. Thus, for a given interface, only a single list is evaluated per direction. For purposes of security, moreover, the lists are relatively short. Nevertheless, **the evaluation of such lists by software modules can significantly degrade the intermediate device's performance (e.g., number of packets processed per second)**. This degradation in performance has been accepted mainly due to a lack of acceptable alternatives. It is proposed, however, to expand the use of access control lists for additional features besides just security decisions. For example, **access control lists may also be used to determine whether a given packet should be encrypted and/or whether a particular quality of service (QoS) treatment should be applied**. Accordingly, it is anticipated that multiple access control lists may be assigned to a single interface. As additional access control lists are defined and evaluated per packet, the **reduction in performance will likely reach unacceptable levels**.

There is no mention of using the lists for "better identification of incoming packets and rules to follow" as the Office Action contends, but there is discussion of how use of the lists can **degrade performance**. As *Gibson et al.* is concerned with establishing bi-directional communication sessions, particularly for telephony applications, wherein, in the preferred example, the established connection provides a guaranteed level of quality of service (see Abstract), there is no motivation to combine *Gibson et al.* and *Gai et al.*'s access control lists, as

the addition of the lists would **degrade performance**, with no added benefit to *Gibson et al.*'s communication sessions. Obviousness rejections require some evidence in the prior art of a teaching, motivation, or suggestion to combine and modify the prior art references. *See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001); *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Further, as the addition of the lists of *Gai et al.* would degrade performance of *Gibson et al.*'s communication sessions, the references teach away from their combination. It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983). A prior art reference must be considered in this entirety including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Thus, Applicants respectfully request withdrawal of the rejection with respect to claims 2, 7, 10-12, 22, 27, and 29-31.

With regard to the obviousness rejections of claims 13 and 32, Applicants respectfully submit that the deficiencies of *Gibson et al.* are also not cured by the secondary reference of *Nilakantan et al.*, which is cited as supposedly teaching a system with a main server controller access nodes, where the main server can inform the access points to issue messages that it would normally have to send through the network. Moreover, claim 13 recites, "in response to service processing by the external processor, injecting a packet from the external processor into packet flow through the programmable access device." The Office Action (p. 8) contends that it would have been obvious "to use Nilakantan's teachings of reducing traffic by allowing access nodes spoof messages from the server in Gibson's system in order to reduce the number of messages

that have to originate from the main server (Column 3, lines 24-43)." However, *Gibson et al.* makes no mention of any "access nodes" for which spoofing messages from a server could be useful, and, as discussed previously, *Gibson et al.* is concerned with establishing bi-directional communication sessions, particularly for telephony applications, wherein, in the preferred example, the established connection provides a guaranteed level of quality of service (see Abstract). Thus, the reasons proferred by the Office Action for combining the references makes no sense, other than adding a level of useless complexity to *Gibson et al.* Obviousness rejections require some evidence in the prior art of a teaching, motivation, or suggestion to combine and modify the prior art references. *See, e.g., McGinley v. Franklin Sports, Inc., supra.* Thus, Applicants respectfully request withdrawal of the rejection with respect to claims 13 and 32.

Regarding the obviousness rejections of claims 3 and 23, Applicants respectfully submit that the deficiencies of *Gibson et al.* and *Gai et al.* are not cured by the further secondary reference of *Nilakantan et al.*, which is cited as supposedly disclosing a system with a main server and border nodes, where the main server can tell the border nodes to stop sending certain packets. Similarly to its rejection of claims 13 and 32, the Office Action (pp. 8-9) contends that it would have been obvious "to use Nilakantan's teachings of reducing traffic by allowing access nodes spoof messages from the server in Gibson's system in order to reduce the traffic going to the main server (Column 2, lines 6-21)." However, as discussed above, *Gibson et al.* makes no mention of any "access nodes" for which spoofing messages from a server could be useful, and, as discussed previously, *Gibson et al.* is concerned with establishing bi-directional communication sessions, particularly for telephony applications, wherein, in the preferred example, the established connection provides a guaranteed level of quality of service (see Abstract). Thus, the reasons proferred by the Office Action for combining the references makes no sense, other than adding a level of useless complexity to *Gibson et al.* Obviousness rejections

require some evidence in the prior art of a teaching, motivation, or suggestion to combine and modify the prior art references. *See, e.g., McGinley v. Franklin Sports, Inc., supra.* Thus, Applicants respectfully request withdrawal of the rejection with respect to claims 3 and 23.

Turning attention to the obviousness rejections of claims 5 and 25, Applicants respectfully submit that the addition of *Haas* also fails to satisfy "**responsive to the control message, establishes the configuration specified by the control message and communicates a first portion of the received messages to the external processor for service processing in accordance with the configuration.**" *Haas* (per Abstract) is concerned with a data communications architecture in which high level communications services provided to a host processor are arranged into independent horizontal functions that are processed in parallel. Conditional dependencies among the horizontal functions are resolved by a connector that interfaces the horizontal functions to an application layer of the host processor. A high-level protocol specification is obtained by choosing appropriate values for parameters of the horizontal functions which are parametrically programmable. *Haas* is cited by the Office Action (p. 9) for a supposed teaching that an access device's configured policy should include a retransmissions policy. However, claim 5 recites, "transmitting a monitor control message comprises **transmitting a control message to establish a threshold number of allowed retransmissions.**" The Office Action does not address how the recited features are met by *Gibson et al.* and *Haas*, but instead merely contends that it would have been obvious "to use Haas' teachings of a **retransmission policy** on Gibson's network node reconfiguration system" with no discussion of how any "retransmission policy" of *Haas* would be implemented with *Gibson et al.*, much less any discussion of "transmitting a monitor control message comprises **transmitting a control message to establish a threshold number of allowed retransmissions,**" again in contravention of 35 U.S.C. § 132 as uninformative, and MPEP §

706.02(j), as discussed previously. Thus, Applicants respectfully request withdrawal of the rejection with respect to claims 5 and 25.

With regard to the obviousness rejections of claims 17 and 36, the combination of *Gibson et al.* and *Sauter* similarly fails to teach "**responsive to the control message, establishes the configuration specified by the control message and communicates a first portion of the received messages to the external processor for service processing in accordance with the configuration**." *Sauter* (per Abstract) is directed to a protocol used for communication between a hypermedia system and a large number of interconnected editors communicating with a hyperstructure. The protocol uses a set of messages that allow each editor to manipulate and manage the contents of nodes, and it is also manipulated by the nodes and is accessible through a programming interface. *Sauter* is cited by the Office Action (p. 9) as supposedly teaching managing a network node with an API. There is no mention or suggestion anywhere in *Sauter* of establishing a configuration in response to a control message, and communicating a first portion of received messages to an external processor in accordance with the configuration.

Thus, Applicants respectfully request withdrawal of the rejection with respect to claims 2-3, 5, 7, 10-13, 17, 22-23, 25, 27, 29-32, and 36.

Therefore, the present application overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at (703) 425-8508 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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